

What is claimed is:

1. A method for controlling the microbial contamination of drinking water produced by condensation comprising:

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Providing a container of zeolite; and

Performing a step of passing the said drinking water produced by condensation through the said container of zeolite.

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2. The method as set forth in claim 1, wherein the said zeolite is a clinoptilolite.

3. The method as set forth in claim 2, wherein the said method further comprises a step of sizing the said clinoptilolite to within the range of 1 to 10 mm.

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4. The method as set forth in claim 3, wherein the said method further comprises a step of washing the said clinoptilolite with distilled water.

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5. The method as set forth in claim 4, wherein the said method further comprises a step of adjusting the pH of the said clinoptilolite to within the range of 6.0 to 8.0.

6. The method as set forth in claim 5, wherein the said method further comprises a step of activating the said clinoptilolite by hydrothermal ion exchange.

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7. The method as set forth in claim 6, wherein the said activation of the said clinoptilolite is by boiling in a solution containing zinc.

8. The method as set forth in claim 7, wherein the said solution containing zinc comprises a solution of water and a zinc compound selected from the group consisting of zinc sulfate, zinc chloride, and zinc oxide.

5 9. The method as set forth in claim 8, wherein the said solution containing zinc comprises water and $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$.

10. The method as set forth in claim 9, wherein the concentration of the said solution of water and $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ is in the range of 1 to 10 percent by weight $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$.

10 11. The method as set forth in claim 10 wherein the said boiling in a solution of $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ is continued within the range of 2 and 15 hours.

10. A composition for disinfecting water produced from condensation comprising a
15 zeolite and a compound of zinc.

11. The composition of claim 10 wherein the said zeolite is a natural clinoptilolite.

12. The composition of claim 11 wherein the said compound of zinc is selected from
20 the group consisting of zinc sulfate, zinc chloride, and zinc oxide.

13. The composition of claim 11 wherein the said compound of zinc is ZnSO_4 .

14. The composition of claim 11 wherein the said compound of zinc is a hydrated
25 form of ZnSO_4 .

15. A method of preparing a composition for controlling the microbial contamination of drinking water produced by condensation comprising boiling a zeolite in a solution containing a zinc compound.

5 16. The method of claim 15 wherein the said zeolite is a clinoptilolite.

17. The method of claim 16 wherein the said boiling is for a time in the range of 1 to 10 hours.

10 18. The method of claim 16 wherein the said zinc compound is selected from the group consisting of zinc sulfate, zinc chloride, and zinc oxide.

19. The method of claim 16 wherein the said zinc compound is $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$.

15 20. The method of claim 16 further comprising the step of sizing the said clinoptilolite to with the range of 1 to 10 mm.

21. The method of claim 20, wherein the said method further comprises a step of washing the said clinoptilolite with distilled water.

20 22. The method of claim 21, wherein the said method further comprises a step of adjusting the pH of the said clinoptilolite to within the range of 6.0 to 8.0.

23. The method of claim 22, wherein the said method further comprises a step of
25 activating the said clinoptilolite by hydrothermal ion exchange.

24. The method of claim 23, wherein the said activation by hydrothermal ion exchange of the said clinoptilolite is by boiling in a solution containing zinc.

5 25. The method of claim 24, wherein the said solution containing zinc comprises a solution of water and a zinc compound selected from the group consisting of zinc sulfate, zinc chloride, and zinc oxide.

26. The method of claim 25, wherein the said solution containing zinc comprises
10 water and $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$.

27. The method of claim 26, wherein the concentration of the said solution of water and $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ is in the range of 1 to 10 percent by weight $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$.

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